

Appl. No. 09/787,303

Art Unit 1772

November 26, 2003

Reply to Office Action of August 28, 2003

REMARKS

Applicants respectfully request the Examiner to reconsider the present application in view of the foregoing amendments to the claims.

In the present application, claims 1-3 and 5-19 are pending. Claims 18-19 have been added. Claims 5-8 remain withdrawn.

No new matter has been added by way of these new claims, because each new claim is supported by the present specification. For example, new claim 18 is a product-by-process claim and is fully supported by originally filed claims 1 and 5, and by the present specification at pages 2 and 5 (lines 5-11). Thus, no new matter has been added.

Based upon the above considerations, entry of the present amendment is respectfully requested.

In view of the following remarks, Applicants respectfully request that the Examiner withdraw the only outstanding rejection and allow the currently pending claims.

Issues Under 35 U.S.C. § 103(a)

Claims 1-3 and 9-17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ebnesajjad '639 (U.S. Patent Number 5,683,639). Applicants respectfully traverse, and reconsideration and withdrawal are respectfully requested.

Applicants respectfully maintain their position that the present invention is patentably distinct over Ebnesajjad '639 and that the

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outstanding rejection is improper for the reasons stated in Applicants' replies dated July 10, 2003, and August 1, 2003. Still, Applicants provide additional remarks as stated below.

Additional Distinctions over Ebnesajjad '639

Applicants submit that the properties of the instantly claimed molded article are patentably distinct from those properties of the molded article of Ebnesajjad '639. As shown in Exhibit A, which was attached to Applicants' reply of July 10, 2003, the Ebnesajjad '639 process leads to a molded product that necessarily falls outside the scope of the present invention. As further evidence of patentability, Applicants herein submit a Rule 132 Declaration by co-inventor Masahiko Yamada demonstrating that the present invention does produce a different molded article.

To summarize, the newly provided Declaration demonstrates key differences in melt viscosity and block deformation properties when comparing the present invention to the molded polytetrafluoroethylene (PTFE) article as described by Ebnesajjad '639. Further, Applicants explain in the Declaration how the larger-sized cylindrical product of the present invention (i.e., of at least 800 mm) does not have the problems of the tubes that use the process of Ebnesajjad '639 (i.e., deformation of the tubes).

Figure A of the Declaration

Figure A of the enclosed Declaration demonstrates the relationship between the block size and the deformation amount. For instance, the lowest amount of deformation was for the article having a length of about 400 mm. Also, Figure A depicts the degree of deformation amount and how the amount is dependent on melt viscosity. For instance, a molded article having a melt viscosity of 6.55×10^9 poise will have anywhere from a 2% to beyond a 7% block deformation amount.

Figure B of the Declaration

Figure B of the Declaration compares the product of Ebnesajjad '639 with that of the present invention. In essence, Figure B visually demonstrates the large deformations that occur when using conventional procedures (i.e., such as that described in Ebnesajjad '639; see "Experiment A-1"), when compared to the present invention (illustrated as "Experiment B-1").

Summary of the Declaration

Experiments A-1, A-2 and A-3 of the Declaration (at pages 2-3) are comparative examples, and Experiment B-1 corresponds to the present invention. Experiment A-1 has a preform size of 100 cm, wherein the preform is similar to Figure 1 of the present application. Experiment A-2 changes the preform size of A-1, and Experiment A-3 changes the melt

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viscosity of A-1. Experiment A-3 has a melt viscosity of 1.32×10^{10} poise (compare to the 1.0×10^9 poise at Col. 1, lines 53-54 of Ebnesajjad '639).

Experiment B-1 has a melt viscosity of 6.55×10^9 poise, and a length of about 108 cm (see line 6 from the bottom of page 4).

As can be seen from the Declaration, the present invention achieves a block deformation amount of 0.6% (see page 4, line 3 from the bottom of the Declaration). As can be seen from the photograph of Figure B, one of ordinary skill in the art would recognize that the present invention has unexpectedly achieved a polytetrafluoroethylene block-shaped molded article with less block deformation, especially when viewing the article at the left of the picture (which corresponds to Ebnesajjad '639).

Further, Figure A of the Declaration shows the relationship between the block length and the amount of deformation. The larger the article or the longer the length, the more the molded article will deform (even with the same melt viscosity; see page 7 of the Declaration). Further, a larger melt viscosity results in a smaller amount of deformation (when the size of the molded article is kept constant).

With regard to the outstanding rejection, the USPTO asserts that it would be obvious to vary the height size, roundness degree and degree of bend of a PTFE molded article, and cites *In re Rose* for its position of unpatentability (see page 3, first full paragraph of the Office Action). However, Applicants respectfully disagree with this position, since the

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Rule 132 Declaration demonstrates that varying a property, such as height size, cannot be obvious. As mentioned, Figures A and B of the enclosed Declaration demonstrate that varying the height size (keeping the melt viscosity constant) leads to large amounts of deformation in the molded article. And as Applicants have maintained, size for molded articles in this art does not involve a routine skill. The problems associated with such large articles have existed for some time, as mentioned in Applicants' specification at pages 1 and 2.

Additionally, Applicants respectfully submit that Ebnesajjad '639 fails to address any problems with regard to reducing deformation for a PTFE cylinder with a length of at least 800 mm, wherein such problems are both addressed and overcome in accordance with the present invention.

Thus, Applicants respectfully submit that the present invention is patentably distinct over the cited Ebnesajjad '639 reference. Figure B of the Declaration compares the product of Ebnesajjad '639 with that of the present invention, wherein it is clearly evident that patentable distinctions exist. Further, the cited Ebnesajjad '639 reference fails to disclose any embodiments that inherently have the features as recited in the present claims, fails to address any problems associated with forming the PTFE cylinder of the present invention, and fails to provide a motivation to one skilled in the art to attempt to form the PTFE cylinder of the present invention, such that significant patentably

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distinctions exist between the present invention and Ebnesajjad '639. Accordingly, Applicants respectfully request the Examiner to reconsider, and to withdraw all rejections and allow the currently pending claims.

Conclusion

Applicants respectfully submit that the present invention is patentably distinct over the cited Ebnesajjad '639 reference for the reasons stated above. Applicants respectfully request consideration of the enclosed Rule 132 Declaration as evidence of patentability for the present invention, as well as the newly presented product-by-process claims.

A full and complete response has been made to all issues as cited in the Office Action. Applicants have taken substantial steps in efforts to advance prosecution of the present application. Thus, Applicants respectfully request that a timely Notice of Allowance issue for the present case.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Eugene T. Perez (Reg. No. 48,501) for an Interview at the telephone number of the undersigned below, in an effort to expedite prosecution in connection with the present application.

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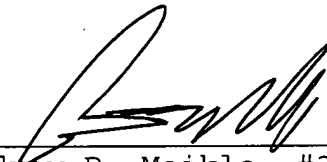
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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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By 
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Attachment: Declaration Under 37 C.F.R. § 1.132

(Rev. 09/30/03)